



Figure 2. ELISA schematic of a positive result

In this simulated assay, each sample will be tested in triplicate to ensure reproducibility. Known positive and negative samples are included as controls. For ease of performance, the well washing steps of a true ELISA have been eliminated in this simulation. It is important to note that the washes are a necessary step of an actual assay. Likewise, it is critical to use a clean pipet for each new sample or reagent to prevent cross-contamination of the wells.

Instructions

1. Using one plastic pipet, carefully administer 3 drops of simulated antigen in each well of rows A and B of the microtiter plate. Discard the pipet after use. In a true ELISA assay, the antigen would bind to the bottom of the microtiter plate. The wells would then be washed with a buffer to remove any unbound molecules. In this simulated lab activity, the washing step has been eliminated.
2. Using a clean pipet, add 3 drops of positive control to wells A1, A2, and A3 of the microtiter plate (see Figure 3). Do not allow the pipet to touch the liquid already in the wells. Discard the pipet after use.
3. Using a clean pipet, add 3 drops of negative control to wells A4, A5, and A6 of the microtiter plate (see Figure 3). Do not allow the pipet to touch the liquid already in the wells. Discard the pipet after use.
4. Using a clean pipet, add 3 drops of Patient A sample to wells A7, A8, and A9 of the microtiter plate (see Figure 3). Do not allow the pipet to touch the liquid already in the wells. Discard the pipet after use.